

FIG. 1a

CAA	ATC	GTC	ACC	GAC	AAT	TCC	ATT	GGC	AAC	CAC	GAT	GGC	TAT	GAT	TAT	
Gln	Ile	Val	Thr	Asp	Asn	Ser	Ile	Gly	Asn	His	Asp	Gly	Tyr	Asp	Tyr	
1				5				10						15		
GAA	TTT	TGG	AAA	GAT	AGC	GGT	GGC	TCT	GGG	ACA	ATG	ATT	CTC	AAT	CAT	
Glu	Phe	Trp	Lys	Asp	Ser	Gly	Gly	Ser	Gly	Thr	Met	Ile	Leu	Asn	His	
			20				25						30			
GGC	GGT	ACG	TTC	AGT	GCC	CAA	TGG	AAC	AAT	GTT	AAC	AAC	ATA	TTA	TTC	
Gly	Gly	Thr	Phe	Ser	Ala	Gln	Trp	Asn	Asn	Val	Asn	Asn	Ile	Leu	Phe	
			35				40					45				
CGT	AAA	GGT	AAA	AAA	TTC	AAT	GAA	ACA	CAA	ACA	CAC	CAA	CAA	GTT	GGT	
Arg	Lys	Gly	Lys	Lys	Phe	Asn	Glu	Thr	Gln	Thr	His	Gln	Gln	Val	Gly	
	50					55					60					
AAC	ATG	TCC	ATA	AAC	TAC	GGA	GCC	AAC	TTC	CAA	CCA	AAT	GGT	AAT	GCG	
Asn	Met	Ser	Ile	Asn	Tyr	Gly	Ala	Asn	Phe	Gln	Pro	Asn	Gly	Asn	Ala	
65					70					75					80	
TAT	TTA	TGC	GTC	TAT	GGT	TGG	ACT	GTT	GAC	CCT	CTT	GTC	GAA	TAT	TAT	
Tyr	Leu	Cys	Val	Tyr	Gly	Trp	Thr	Val	Asp	Pro	Leu	Val	Glu	Tyr	Tyr	
				85					90					95		
ATT	GTC	GAC	AGT	TGG	GGC	AAC	TGG	CGT	CCA	CCA	GGA	GCA	ACG	CCT	AAG	
Ile	Val	Asp	Ser	Trp	Gly	Asn	Trp	Arg	Pro	Pro	Gly	Ala	Thr	Pro	Lys	
			100				105						110			
GGG	ACC	ATC	ACT	GTT	GAT	GGA	GGA	ACA	TAT	GAT	ATC	TAC	GAG	ACT	CTT	
Gly	Thr	Ile	Thr	Val	Asp	Gly	Gly	Thr	Tyr	Asp	Ile	Tyr	Glu	Thr	Leu	
			115				120					125				
AGA	GTC	AAT	CAA	CCC	TCC	ATT	AAG	GGG	ATT	GCC	ACA	TTT	AAA	CAA	TAT	
Arg	Val	Asn	Gln	Pro	Ser	Ile	Lys	Gly	Ile	Ala	Thr	Phe	Lys	Gln	Tyr	
	130					135					140					
TGG	AGT	GTT	CGA	AGA	TCG	AAA	CGC	ACG	AGT	GGC	ACG	ATT	TCT	GTC	AGC	
Trp	Ser	Val	Arg	Arg	Ser	Lys	Arg	Thr	Ser	Gly	Thr	Ile	Ser	Val	Ser	
145					150					155				160		

FIG. 1b

AAC CAC TTT AGA GCG TGG GAA AAC TTA GGG ATG AAT ATG GGG AAA ATG
Asn His Phe Arg Ala Trp Glu Asn Leu Gly Met Asn Met Gly Lys Met
165 170 175

TAT GAA GTC GCG CTT ACT GTA GAA GGC TAT CAA AGT AGC GGA AGT GCT
Tyr Glu Val Ala Leu Thr Val Glu Gly Tyr Gln Ser Ser Gly Ser Ala
180 185 190

AAT GTA TAT AGC AAT ACA CTA AGA ATT AAC GGT AAC CCT CTC TCA ACT
Asn Val Tyr Ser Asn Thr Leu Arg Ile Asn Gly Asn Pro Leu Ser Thr
195 200 205

ATT AGT AAT GAC GAG AGC ATA ACT TTG GAT AAA AAC AAT
Ile Ser Asn Asp Glu Ser Ile Thr Leu Asp Lys Asn Asn
210 215 220

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[illegible]

AAATTGAATT GTGTATATCT AATGATAACG ACAAATCGTC ACTGTTTTTA AACTAATCTC
AAACCAATAC TTCTTTATTT AACGCTAACC ACTTGCAATC TTATCACAAG AACATTCTTT
ATAGGAACTT TCCCATTGTC AAGACGATAA AAAATCTTTT TCCCCTATTT TATCTTATCG
CCTTGATCGG TTTAATTGT AAACCTTTATT TTAGTTTACG TGATGTTCCC TCATTTCATC
CATTAATCAC AGTTAACGCT AGAGTCATCT TTTTTCGGTT CTCAAAAATA CCTGAAGAAC
ATTTATGTCA TATTTTCTCA CGCCGCTCCA TAATGGAATA TATATACTCT TTTATACATA
TTAAGTAAAT TAGTATATAC TTGCGTTATC AAAATGTGAG ATAATCTAAT TGATCAAACA
AGCAGCTATC CAAAAACAC TGATGTTGAC CTCTTAAAGA AGTGTCACTA TCTATGAAAA
GATAATTATC CAGTTTCAAA ATTTGAAATA GTGTGTATGG AATAGTTTGA ATGTCAACTG
CTGTGAAAGG AGGGTAGGTA GTACCGTAGA CTTTCATTACC AAAAATTAGT TGTAACAAAA
TTAAAAGGAG GAATGCCTA ATG AGA CAA AAG AAA TTG ACG TTG ATT TTA GCC
Met Arg Gln Lys Lys Leu Thr Leu Ile Leu Ala
-25 -20
TTT TTA GTT TGT TTT GCA CTA ACC TTA CCT GCA GAA ATA ATT CAG GCA
Phe Leu Val Cys Phe Ala Leu Thr Leu Pro Ala Glu Ile Ile Gln Ala
-15 -10 -5
CAA ATC GTC ACC GAC AAT TCC ATT GGC AAC CAC GAT GGC TAT GAT TAT
Gln Ile Val Thr Asp Asn Ser Ile Gly Asn His Asp Gly Tyr Asp Tyr
1 5 10 15
GAA TTT TGG AAA GAT AGC GGT GGC TCT GGG ACA ATG ATT CTC AAT CAT
Glu Phe Trp Lys Asp Ser Gly Gly Ser Gly Thr Met Ile Leu Asn His
20 25 30
GGC GGT ACG TTC AGT GCC CAA TGG AAC AAT GTT AAC AAC ATA TTA TTC
Gly Gly Thr Phe Ser Ala Gln Trp Asn Asn Val Asn Asn Ile Leu Phe
35 40 45
CGT AAA GGT AAA AAA TTC AAT GAA ACA CAA ACA CAC CAA CAA GTT GGT
Arg Lys Gly Lys Lys Phe Asn Glu Thr Gln Thr His Gln Gln Val Gly
50 55 60
AAC ATG TCC ATA AAC TAC GGA GCC AAC TTC CAA CCA AAT GGT AAT GCG
Asn Met Ser Ile Asn Tyr Gly Ala Asn Phe Gln Pro Asn Gly Asn Ala
65 70 75 80

FIG. 2b

TAT TTA TGC GTC TAT GGT TGG ACT GTT GAC CCT CTT GTC GAA TAT TAT
Tyr Leu Cys Val Tyr Gly Trp Thr Val Asp Pro Leu Val Glu Tyr Tyr
85 90 95

ATT GTC GAC AGT TGG GGC AAC TGG CGT CCA CCA GGA GCA ACG CCT AAG
Ile Val Asp Ser Trp Gly Asn Trp Arg Pro Pro Gly Ala Thr Pro Lys
100 105 110

GGG ACC ATC ACT GTT GAT GGA GGA ACA TAT GAT ATC TAC GAG ACT CTT
Gly Thr Ile Thr Val Asp Gly Gly Thr Tyr Asp Ile Tyr Glu Thr Leu
115 120 125

AGA GTC AAT CAA CCC TCC ATT AAG GGG ATT GCC ACA TTT AAA CAA TAT
Arg Val Asn Gln Pro Ser Ile Lys Gly Ile Ala Thr Phe Lys Gln Tyr
130 135 140

TGG AGT GTT CGA AGA TCG AAA CGC ACG AGT GGC ACG ATT TCT GTC AGC
Trp Ser Val Arg Arg Ser Lys Arg Thr Ser Gly Thr Ile Ser Val Ser
145 150 155 160

AAC CAC TTT AGA GCG TGG GAA AAC TTA GGG ATG AAT ATG GGG AAA ATG
Asn His Phe Arg Ala Trp Glu Asn Leu Gly Met Asn Met Gly Lys Met
165 170 175

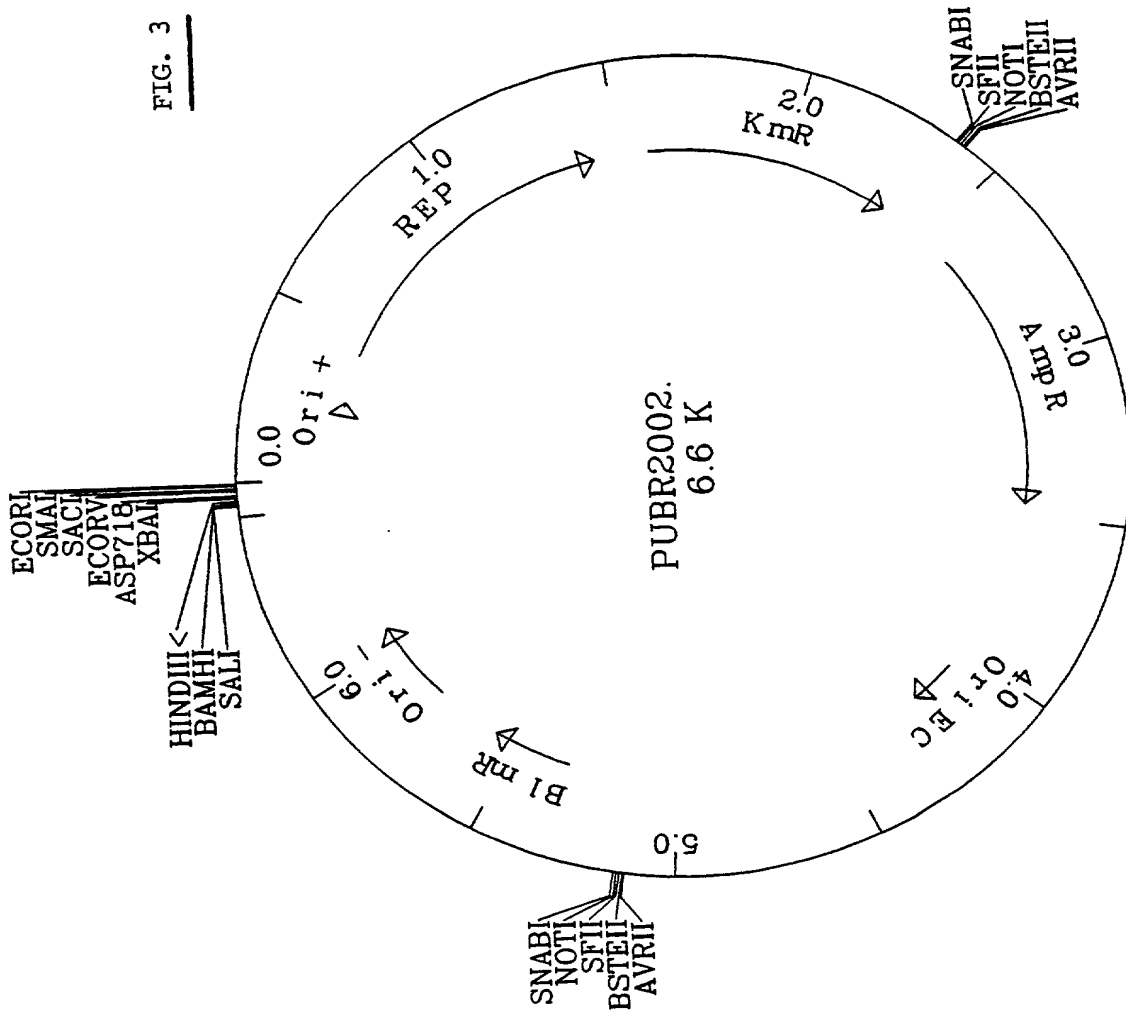
TAT GAA GTC GCG CTT ACT GTA GAA GGC TAT CAA AGT AGC GGA AGT GCT
Tyr Glu Val Ala Leu Thr Val Glu Gly Tyr Gln Ser Ser Gly Ser Ala
180 185 190

AAT GTA TAT AGC AAT ACA CTA AGA ATT AAC GGT AAC CCT CTC TCA ACT
Asn Val Tyr Ser Asn Thr Leu Arg Ile Asn Gly Asn Pro Leu Ser Thr
195 200 205

ATT AGT AAT GAC GAG AGC ATA ACT TTG GAT AAA AAC AAT TAAAAATCCT
Ile Ser Asn Asp Glu Ser Ile Thr Leu Asp Lys Asn Asn
210 215 220

TATCTCTTTC GGTTCAGTTC TCATTATTTT CAAATAACCT CCCGGTTGGA TCTTTTCCAA
CGGGAGGTTT TATTGGAAAG GTTAAGTATA GTATACTCCG ATTCCATCCA GAGGAATGCT
TGAAACACCT CCGTCACTAG

FIG. 3



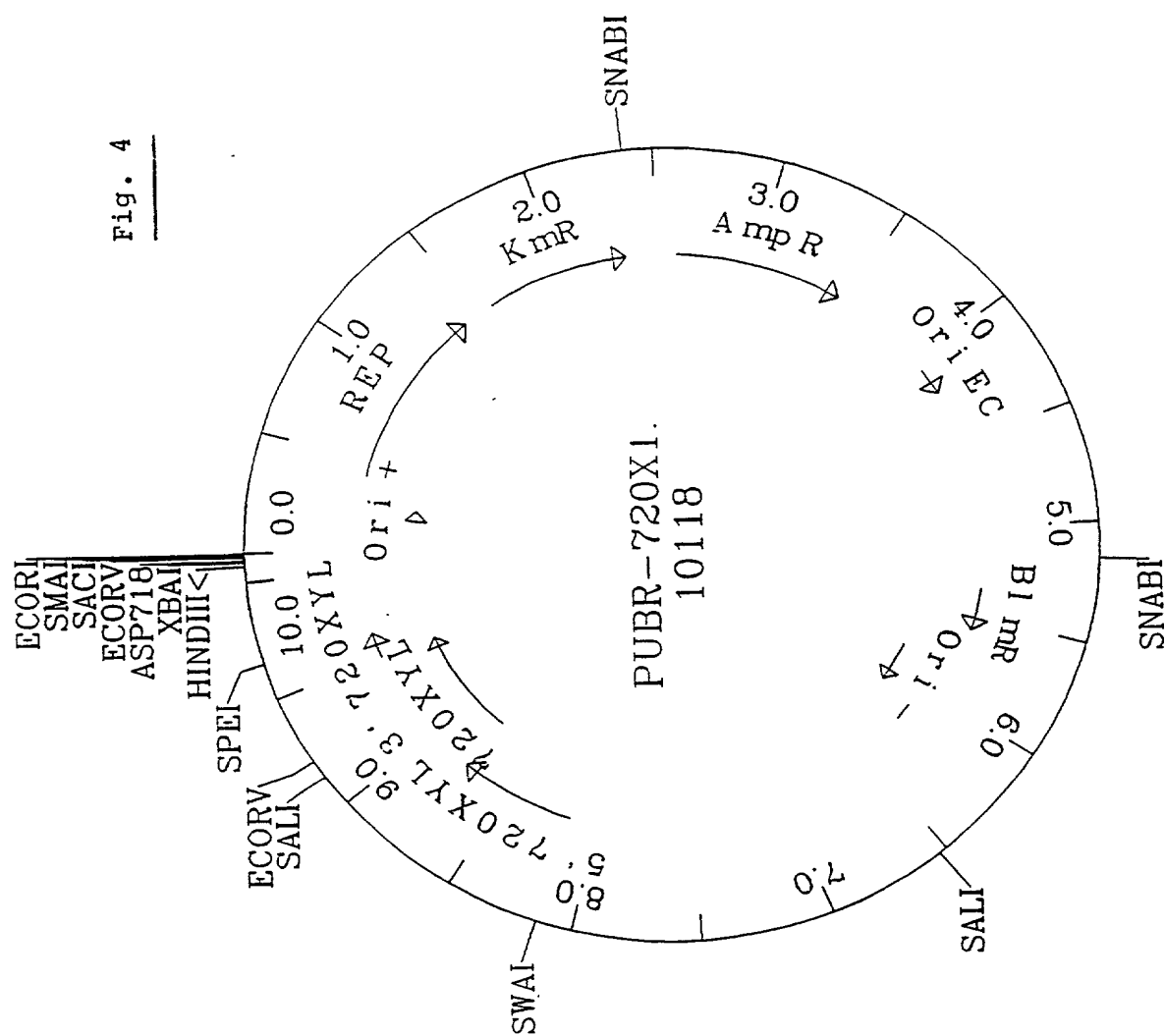
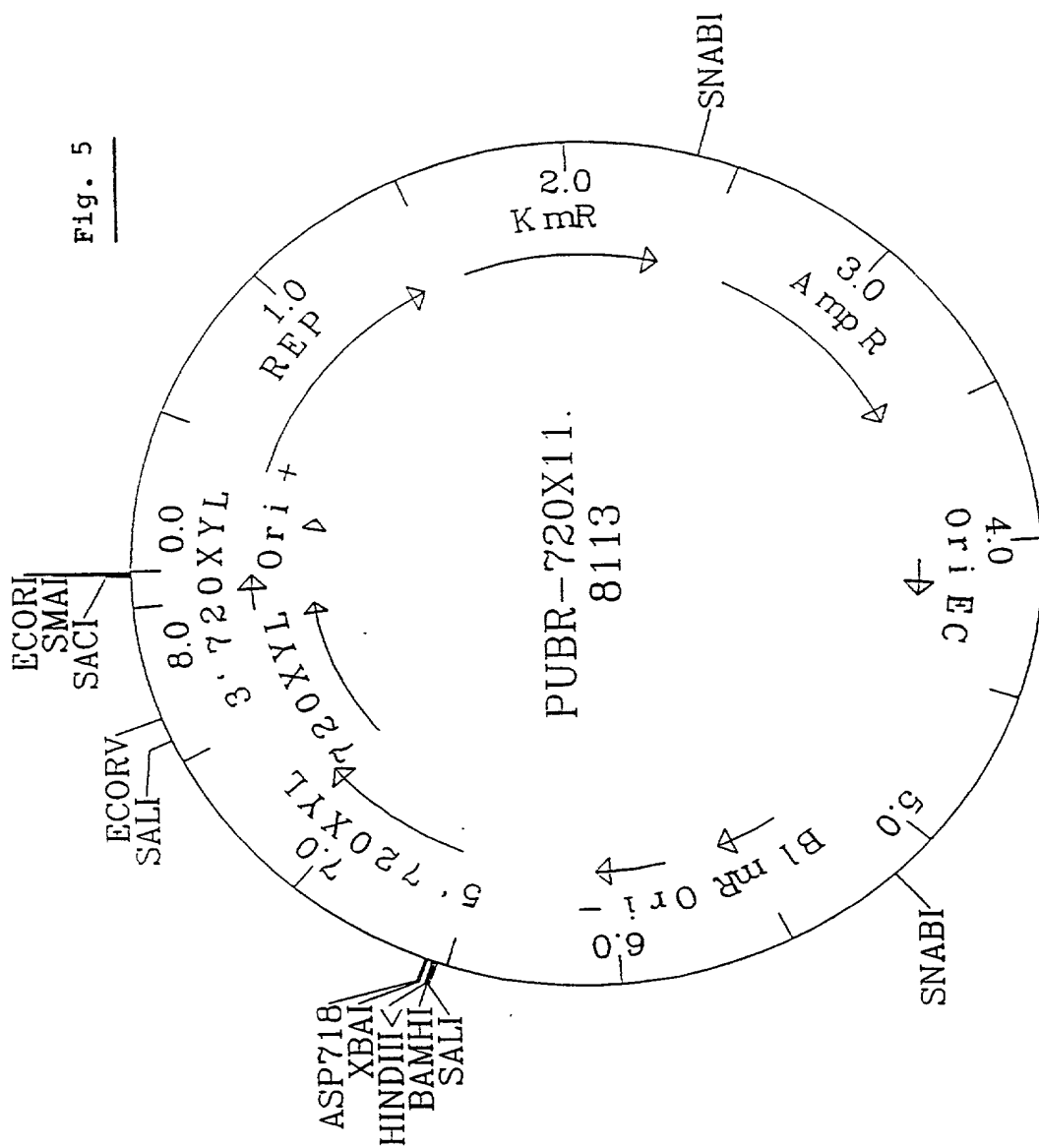


Fig. 5



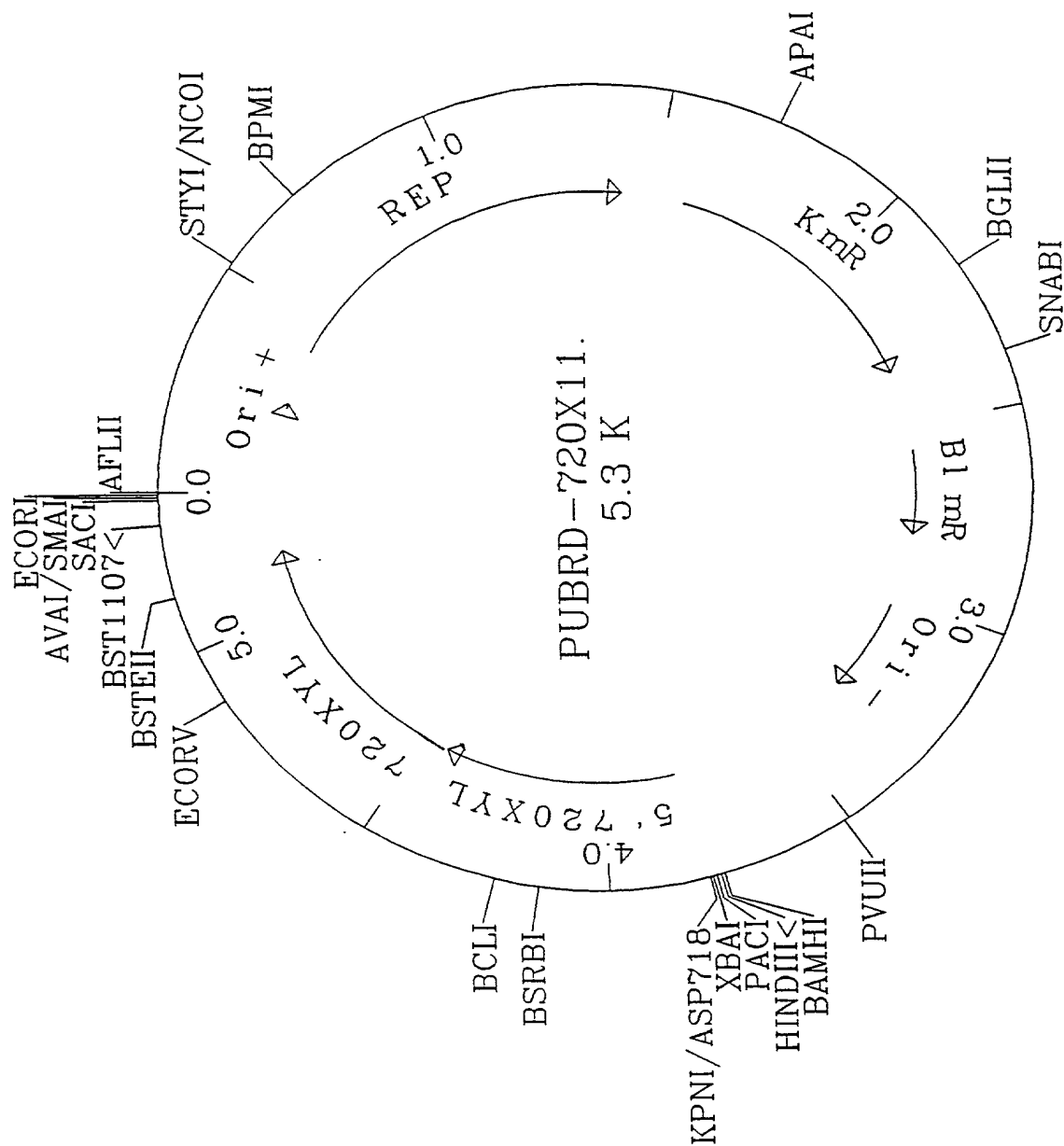


FIG. 6

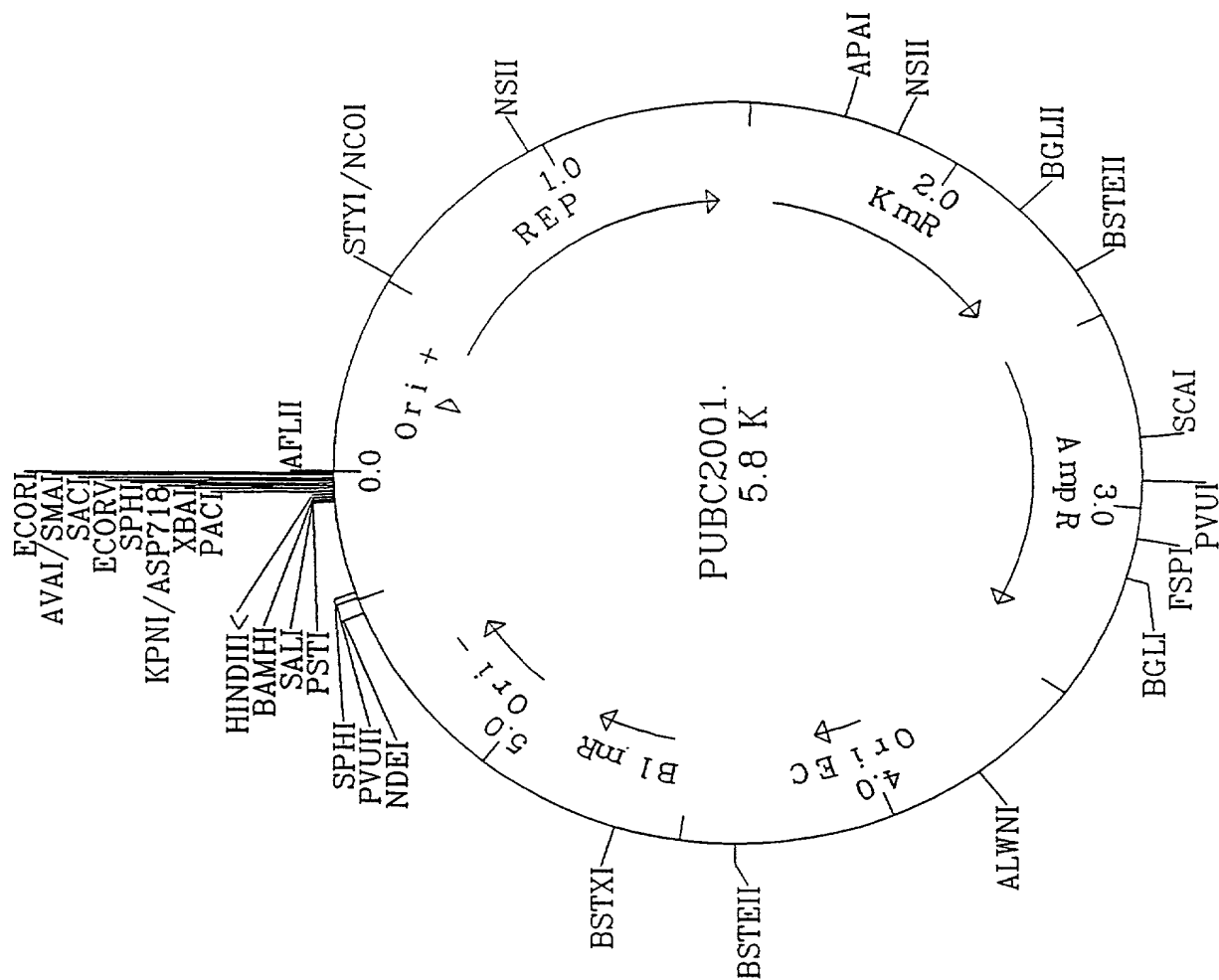
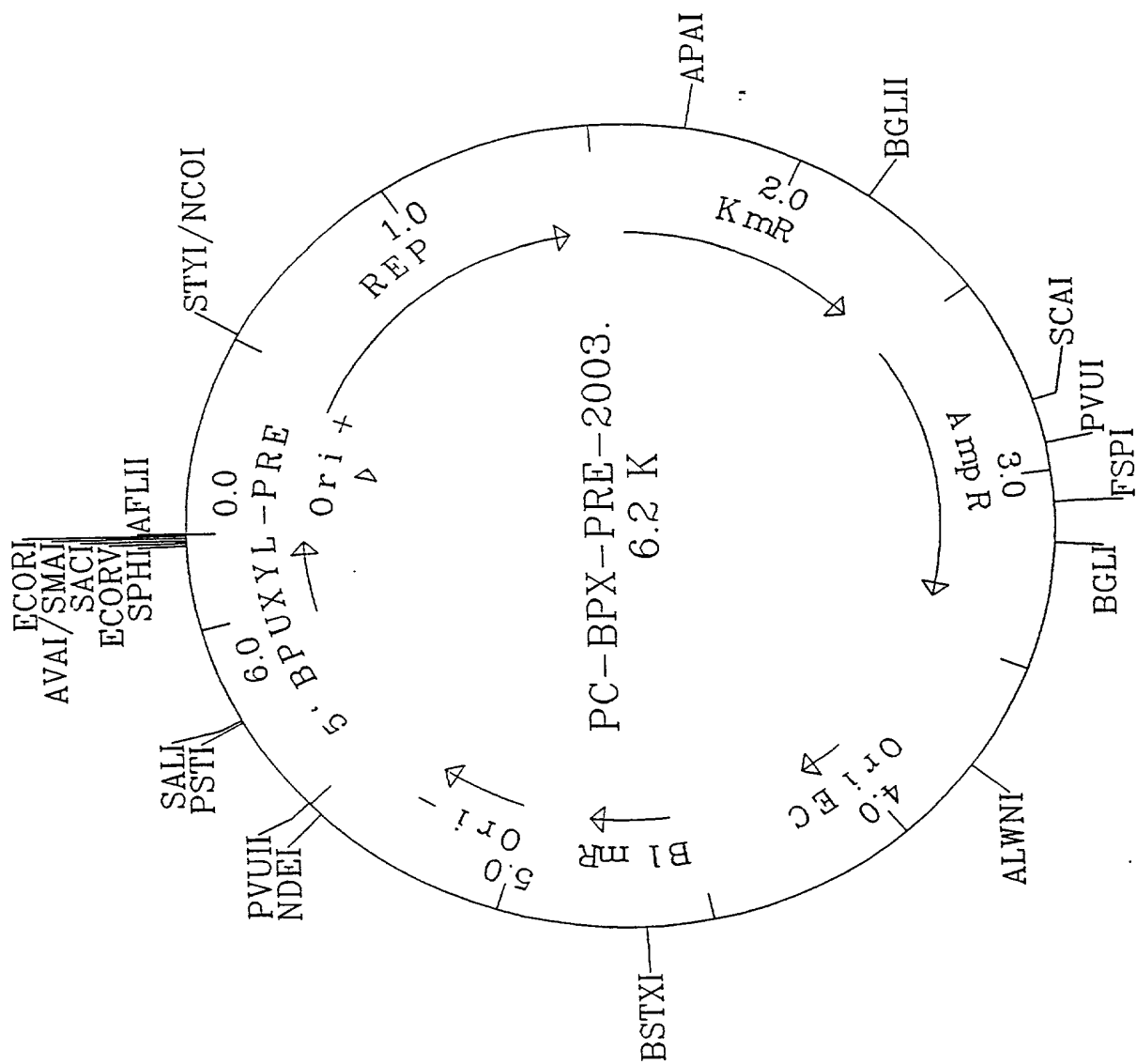


FIG. 7



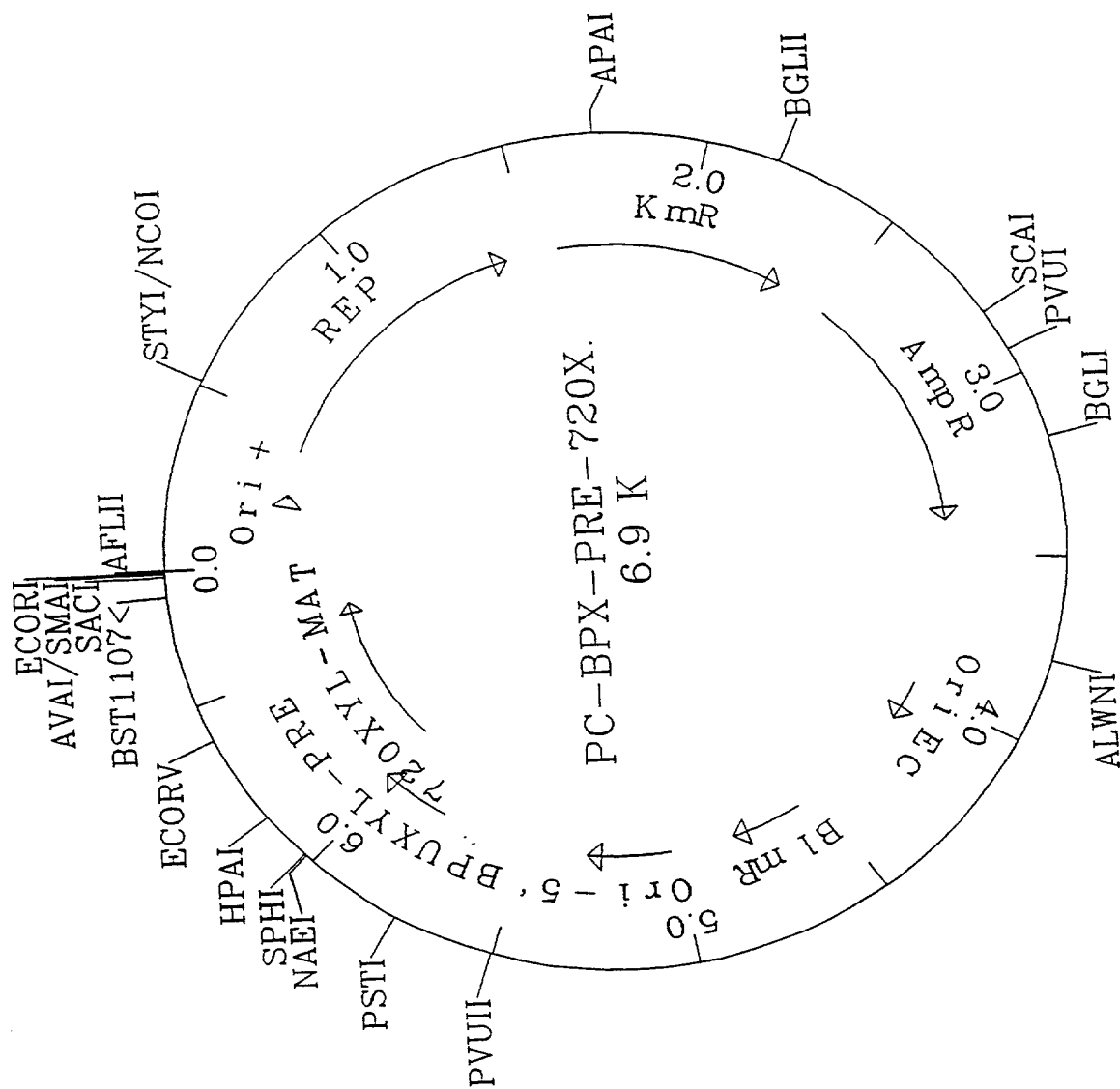


FIG. 9

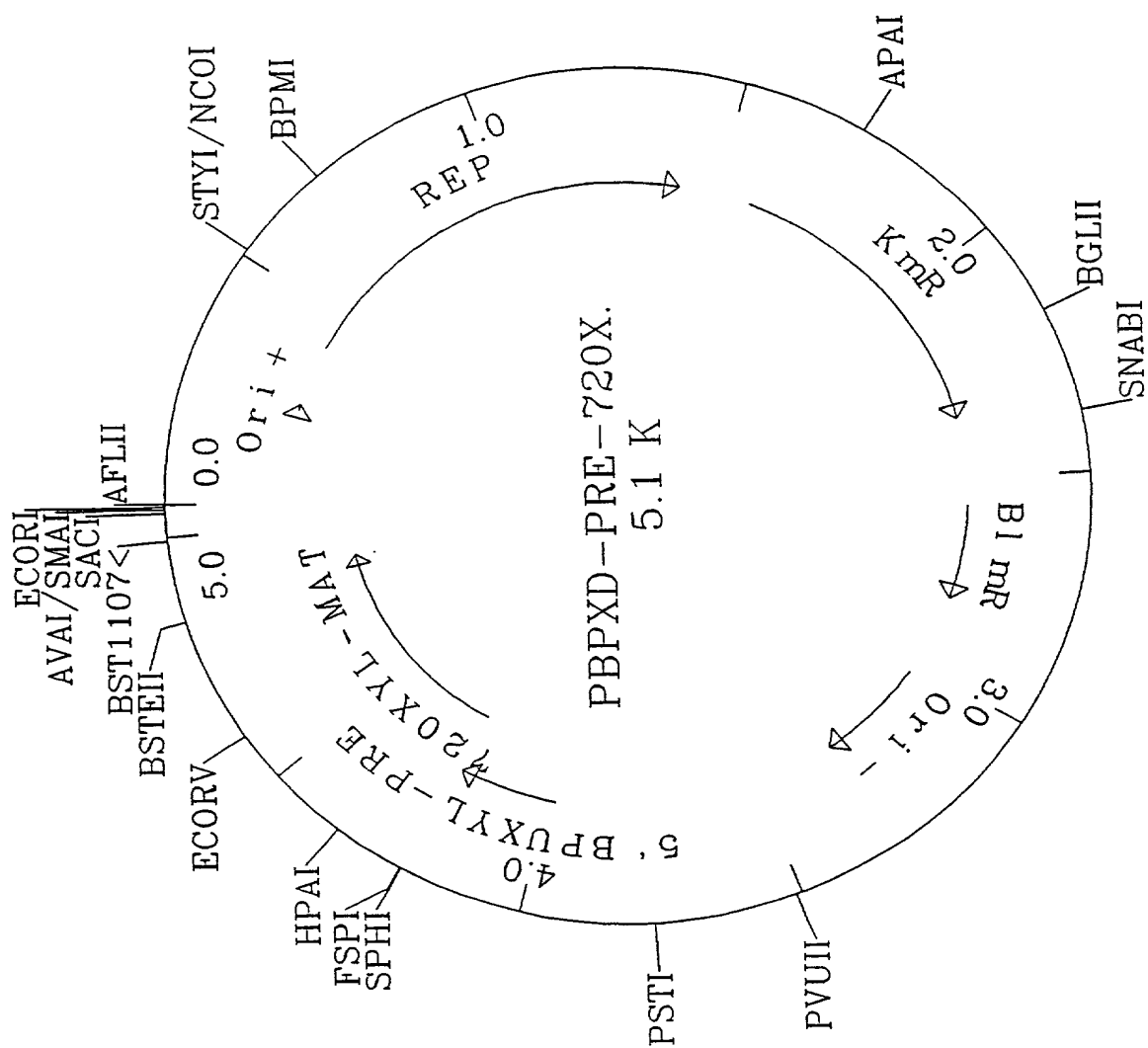


FIG. 10

GTG CTG ACA CTG ACG GCT GTG CCG GCT CAT GCG
Val Leu Thr Leu Thr Ala Val Pro Ala His Ala
20 25

	"0"	"9"	"A"	"B"	"C"	"D"	"E"	"F"	"G"	"H"	"I"	"J"	"K"	"L"	"M"	"N"	"O"	"P"	"Q"	"R"	"S"	"T"	"U"	"V"	"W"	"X"	"Y"	"Z"	"AA"	"AB"	"AC"	"AD"	"AE"	"AF"	"AG"	"AH"	"AI"	"AJ"	"AK"	"AL"	"AM"	"AN"	"AO"	"AP"	"AQ"	"AR"	"AS"	"AT"	"AU"	"AV"	"AW"	"AX"	"AY"	"AZ"	"BA"	"BB"	"BC"	"BD"	"BE"	"BF"	"BG"	"BH"	"BI"	"BJ"	"BK"	"BL"	"BM"	"BN"	"BO"	"BP"	"BQ"	"BR"	"BS"	"BT"	"BU"	"BV"	"BW"	"BX"	"BY"	"BZ"	"CA"	"CB"	"CC"	"CD"	"CE"	"CF"	"CG"	"CH"	"CI"	"CJ"	"CK"	"CL"	"CM"	"CN"	"CO"	"CP"	"CQ"	"CR"	"CS"	"CT"	"CU"	"CV"	"CW"	"CX"	"CY"	"CZ"	"DA"	"DB"	"DC"	"DD"	"DE"	"DF"	"DG"	"DH"	"DI"	"DJ"	"DK"	"DL"	"DM"	"DN"	"DO"	"DP"	"DQ"	"DR"	"DS"	"DT"	"DU"	"DV"	"DW"	"DX"	"DY"	"DZ"	"EA"	"EB"	"EC"	"ED"	"EE"	"EF"	"EG"	"EH"	"EI"	"EJ"	"EK"	"EL"	"EM"	"EN"	"EO"	"EP"	"EQ"	"ER"	"ES"	"ET"	"EU"	"EV"	"EW"	"EX"	"EY"	"EZ"	"FA"	"FB"	"FC"	"FD"	"FE"	"FF"	"FG"	"FH"	"FI"	"FJ"	"FK"	"FL"	"FM"	"FN"	"FO"	"FP"	"FQ"	"FR"	"FS"	"FT"	"FU"	"FV"	"FW"	"FX"	"FY"	"FZ"	"GA"	"GB"	"GC"	"GD"	"GE"	"GF"	"GG"	"GH"	"GI"	"GJ"	"GK"	"GL"	"GM"	"GN"	"GO"	"GP"	"GQ"	"GR"	"GS"	"GT"	"GU"	"GV"	"GW"	"GX"	"GY"	"GZ"	"HA"	"HB"	"HC"	"HD"	"HE"	"HF"	"HG"	"HH"	"HI"	"HJ"	"HK"	"HL"	"HM"	"HN"	"HO"	"HP"	"HQ"	"HR"	"HS"	"HT"	"HU"	"HV"	"HW"	"HX"	"HY"	"HZ"	"IA"	"IB"	"IC"	"ID"	"IE"	"IF"	"IG"	"IH"	"II"	"IJ"	"IK"	"IL"	"IM"	"IN"	"IO"	"IP"	"IQ"	"IR"	"IS"	"IT"	"IU"	"IV"	"IW"	"IX"	"IY"	"IZ"	"JA"	"JB"	"JC"	"JD"	"JE"	"JF"	"JG"	"JH"	"JI"	"JJ"	"JK"	"JL"	"JM"	"JN"	"JO"	"JP"	"JQ"	"JR"	"JS"	"JT"	"JU"	"JV"	"JW"	"JX"	"JY"	"JZ"	"KA"	"KB"	"KC"	"KD"	"KE"	"KF"	"KG"	"KH"	"KI"	"KJ"	"KK"	"KL"	"KM"	"KN"	"KO"	"KP"	"KQ"	"KR"	"KS"	"KT"	"KU"	"KV"	"KW"	"KX"	"KY"	"KZ"	"LA"	"LB"	"LC"	"LD"	"LE"	"LF"	"LG"	"LH"	"LI"	"LJ"	"LK"	"LL"	"LM"	"LN"	"LO"	"LP"	"LQ"	"LR"	"LS"	"LT"	"LU"	"LV"	"LW"	"LX"	"LY"	"LZ"	"MA"	"MB"	"MC"	"MD"	"ME"	"MF"	"MG"	"MH"	"MI"	"MJ"	"MK"	"ML"	"MM"	"MN"	"MO"	"MP"	"MQ"	"MR"	"MS"	"MT"	"MU"	"MV"	"MW"	"MX"	"MY"	"MZ"	"NA"	"NB"	"NC"	"ND"	"NE"	"NF"	"NG"	"NH"	"NI"	"NJ"	"NK"	"NL"	"NM"	"NN"	"NO"	"NP"	"NQ"	"NR"	"NS"	"NT"	"NU"	"NV"	"NW"	"NX"	"NY"	"NZ"	"OA"	"OB"	"OC"	"OD"	"OE"	"OF"	"OG"	"OH"	"OI"	"OJ"	"OK"	"OL"	"OM"	"ON"	"OO"	"OP"	"OQ"	"OR"	"OS"	"OT"	"OU"	"OV"	"OW"	"OX"	"OY"	"OZ"	"PA"	"PB"	"PC"	"PD"	"PE"	"PF"	"PG"	"PH"	"PI"	"PJ"	"PK"	"PL"	"PM"	"PN"	"PO"	"PP"	"PQ"	"PR"	"PS"	"PT"	"PU"	"PV"	"PW"	"PX"	"PY"	"PZ"	"QA"	"QB"	"QC"	"QD"	"QE"	"QF"	"QG"	"QH"	"QI"	"QJ"	"QK"	"QL"	"QM"	"QN"	"QO"	"QP"	"QQ"	"QR"	"QS"	"QT"	"QU"	"QV"	"QW"	"QX"	"QY"	"QZ"	"RA"	"RB"	"RC"	"RD"	"RE"	"RF"	"RG"	"RH"	"RI"	"RJ"	"RK"	"RL"	"RM"	"RN"	"RO"	"RP"	"RQ"	"RR"	"RS"	"RT"	"RU"	"RV"	"RW"	"RX"	"RY"	"RZ"	"SA"	"SB"	"SC"	"SD"	"SE"	"SF"	"SG"	"SH"	"SI"	"SJ"	"SK"	"SL"	"SM"	"SN"	"SO"	"SP"	"SQ"	"SR"	"SS"	"ST"	"SU"	"SV"	"SW"	"SX"	"SY"	"SZ"	"TA"	"TB"	"TC"	"TD"	"TE"	"TF"	"TG"	"TH"	"TI"	"TJ"	"TK"	"TL"	"TM"	"TN"	"TO"	"TP"	"TQ"	"TR"	"TS"	"TT"	"TU"	"TV"	"TW"	"TX"	"TY"	"TZ"	"UA"	"UB"	"UC"	"UD"	"UE"	"UF"	"UG"	"UH"	"UI"	"UJ"	"UK"	"UL"	"UM"	"UN"	"UU"	"UV"	"UW"	"UX"	"UY"	"UZ"	"VA"	"VB"	"VC"	"VD"	"VE"	"VF"	"VG"	"VH"	"VI"	"VJ"	"VK"	"VL"	"VM"	"VN"	"VO"	"VP"	"VQ"	"VR"	"VS"	"VT"	"VU"	"VV"	"VW"	"VX"	"VY"	"VZ"	"WA"	"WB"	"WC"	"WD"	"WE"	"WF"	"WG"	"WH"	"WI"	"WJ"	"WK"	"WL"	"WM"	"WN"	"WO"	"WP"	"WQ"	"WR"	"WS"	"WT"	"WU"	"WV"	"WW"	"WX"	"WY"	"WZ"	"XA"	"XB"	"XC"	"XD"	"XE"	"XF"	"XG"	"XH"	"XI"	"XJ"	"XK"	"XL"	"XM"	"XN"	"XO"	"XP"	"XQ"	"XR"	"XS"	"XT"	"XU"	"XV"	"XW"	"XX"	"XY"	"XZ"	"YA"	"YB"	"YC"	"YD"	"YE"	"YF"	"YG"	"YH"	"YI"	"YJ"	"YK"	"YL"	"YM"	"YN"	"YO"	"YP"	"YQ"	"YR"
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